Timex Sinclair User Group Newsletter

Editor-R. Mulder
Designer-J. Turner

Ottawa Chapter
Volume II Issue I

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Meetings

LOCATION: All meetings are held at the NRC bldg. 100 Sussex Dr. Room 1129B. Check in with security.
TIME: Meetings are held at 8:00 p.m. on the last Thursday of each month unless otherwise posted.
FORMAT: Each meeting will take the following format:
---President's address and intro of new members.
---Software Review (maximum 20 min.)
---Hardware Review (maximum 20 min.)
---Adjournment of formal part of meeting.
---Informal: members dicuss common problems, swap programs etc.....

PRESIDENT'S ADDRESS

For those I missed, I hope you all had a very pleasant Christmas holiday and may the new year bring you joy and prosperity and perhaps a little surplus cash to feed the unsatiable computer monster.

As 1984 fades into history, I'd like to reflect for a moment on our accomplishments throughout the past year.

Early in the year we purchased a club computer with funds voluntarily donated by club members. This was followed by the acquisition of a TV monitor which was also purchased with funds donated by club members. With the loan of a RAM pack and a cassette recorder we now have a complete system available at all times for demonstrations.

April, 1984 saw the introduction of the first issue of the club's newsletter thanks to the hurculean efforts of Roelof Mulder and Jim Turner. Recently our newsletter has taken on an international flavour with the exchange of information via the newsletter with clubs in other countries.

1984 gave genesis to our software and technical literature libraries which now contain several useful items.

Under the stewardship of Roger Glover, we kicked off our first software contest this year with a view to bolstering our software library;the results of the contest should be known shortly.

The membership continuously expanded throughout 1984 and our membership level has now passed the fifty level. Participation in the activities of the club by the membership, although still not overwhelming, nevertheless has shown improvement and the recent first-class presentations given by some of the younger members of the club have been most encouraging.

Finally, with respect to the TIMEX/SINCLAIR community at large, 1984 saw the demise of many North American suppliers of TS products occasioned by the withdrawal of TIMEX from the home computer market. Fortunately a few vendors jumped in to fill the void and couple this with the ongoing support in the UK of Sinclair products, we have not been left with an orphan computer.

On another matter, with the ever-increasing cost of doing everything from giving birth to dying, the time has come when we must give consideration to obtaining funds to offset the cost of producing the newsletter and for postage for inter-club correspondence. In the past these costs have been picked up by Messrs Mulder and Turner however, the amount has now become more than we should expect them to absorb. There are various methods we can obtain funds such as advertizing, donations, etc., however, I think the simplest method is to introduce membership fees in order to guarantee availability of resources. The fee amount would probably be of the order of $15 to $20. This matter will be discussed at the January meeting.

I and several other members purchased ROM switches to facilitate running SPECTRUM software on our TS2068 computers. The installation of the ROM switch was simple (even Jim Turner, the fellow who used #14 house wire to hook up his keyboard, managed the task after he wired himself naked to the cold water tap). If any other members are interested, we can arrange another block purchase (minimum of 5 orders) of these switches. Incidently, Gladstone still has a few TS 2068 computers available and if enough interest is shown I'll inquire about the extent of savings we can realize on a block purchase.

By way of interest, I received the software for my BYTEBACK Modem and I am pleased to say the system finally works as advertized.

LETTERS TO THE EDITOR

In my efforts to provide the group with the maximum benefit from both the newsletter and the Users group as a whole I have attempted to correspond with any person or representatives of user groups and other newsletters. The result todate has been very positive. I have suggested that as individuals we have virtually no weight or say in software/hardware requirements or information flow and product support. I have therefore proposed to various groups that an exchange of newsletters from one group to another would act as a bonding agent and in so doing would provide us with the necessary support collectively to get the things we wish.

The result is as follows. TIMELINE - one of the survivor groups has agreed to a newsletter exchange. Many of you have had an occasion to see their paper and would agree that we would benefit from them as well as they would from us.

Hawg Wild software publishes a newsletter dedicated to FORTH and Gary Smith Owner/editor is only too pleased to include us in their newsletter exchange. Needless to say, a reciprocal information flow would be most desired. In other words these newsletters expect to receive quality input from us either in our newsletter or directly to the respective newsletters.

As well a number of us have taken the plunge and subscribed to magazines from Britain, (such as YOUR COMPUTER and Sinclair User) With all of this wealth of information we should be able to keep the major proportion of our readers fully involved and interested.

INPUT REQUIRED

The call is again put forward for active support for both the newsletter and our monthly meetings. In order to serve you well we must know of your requirements or interests.

Please send your articles , reviews , programs , comments or what have you to R. Mulder Editor TS Newsletter, C/O 845 Joanisse St., Gatineau , Quebec, J8R1H1 If you happen to have a 2068 and either M/Script or Tasword, it would be appreciated if you would type in and save your own articles onto tape and send it to me. This would save a great deal of retyping on my part.
Please indicate on your tape the word processing program used to so that I can recall it properly. Don't be shy, send.....send....send.
We also require people for software or hardware demos. If you have such an animal please contact V. Shideler (hardware) or R. Glover (software).

GENERAL

TRAINING SESSIONS

Hopefully our Basic and M/C code training sessions will come up to speed and on the road in short order. Will the responsible parties please get in touch with me to go over the lesson plans or what have you .

MEMBERSHIP DUES

As I am writing this article in advance of receipt of the President's address , I may be rehashing a dead dog or stealing his thunder, however it must be said. It has now come to the point where we believe that membership dues will be required from the group at large.
The cost of the current services ie. newsletter , phone calls to vendors , subscriptions , ad infinitum has in the past been borne by various individuals in our group without due recompense. I for one have expended funds for paper, postage , subscriptions and tapes to the point where I am asking myself where the next dollar will come from. I am also more than sure that other contributing members such as to name a few , J. Turner , D. Mathewson , M. Dove and many more to be left nameless have spent not only their persons time but also a considerable amount of their own hard earned dollars to bring you what you wish to see or hear.
I know that the mention of dues will put some people off and we may not see the same turnout as before but an equilibrium must be reached to hit the greatest number of people at the least personal expense. We are not seeking to make a personal gain from this situation be assured.
To provide you with some idea of the dollar requirement and to establish a conversational base for the next monthly meeting I propose , after much thought , that $20 to $25 would not be unreasonable for current and future services. This would include the right to access of the software library which is growing in leaps and bounds (see appendix) but also the newsletter and other ancillary info provided at the monthly meetings as well as the right to attend the meetings.
Please be prepared to either discuss this topic as the main item of the next meeting or come with your dollars in hand . Receipts and applications will be made available if required through the mails or at the following meeting. (Totally dependant upon the group's decision-of-course!)
Enough said for now, I trust that an equitable solution will be found..
Yours sincerely R. Mulder
Editor

Club Software Library

First of all I should mention that our software library has grown from the one or two programs to quite a number of cassettes. As well, Dennis Bolla has agreed to take on the tasks of the library custodian and the maintenance of the periodical cross reference library.
Please provide him with your support and any information or software that is of benefit to the users group as a whole.
To give you some idea of the software available but not necessarily in the library at present, the following list is submitted:

ZX-81 TS1000

Hex Converter
Auto Record
Nest Egg
Magic Square
Alien Treasure
Lunar Lander
Parrot
Star Trek
4K Games Pack
M/C Introduction
Bibliographic cat. system
Data Transmission
Probability & Statistics
Utility 20.0 (64K)
Craps
ZX Maze
Hadril
Brick Buster
Hunt
Phasor
Surround
Treasure Trails
Kong
Zapman
Poker
Star Blasters
Bandit
Checkers
3D X&O's
Highway Robbery

2068

Top Drawer
Ocean Defense
Reversi
Minstrel
Homeware
Scuba
Ts Copycat

The reason why I say that some are not currently in the library physically is that these programs have been typed in from books and magazines and are on my personal tapes. I have decided to make these available to the group as a whole but I can only do so as I can spare some extra blank tapes to transfer them to. The Editor: Time to transfer these programs is also a factor.
David will be designing a charge-out system for the library so that the cassettes will be available to the group for duplication. These programs are all Public Domain.

NEWS

With this issue, the Newsletter is integrating a column on news specific to Timex/Sinclair computers. NEWS editor is Lee Foss.

For those with modems, we have four U.S. based computer bulletin boards (BBS) to report catering in part or wholly to the TIMEX/SINCLAIR line:

(1) Zebra 1-212-995-2292
(2) Phoenix 1-602-784-0175
(3) Rivercities
1-304-652-1415
(4) Microsystems
1-305-832-2592

And don't forget our own home grown (Ottawa) BBS

(5) Baskerville
(tbc1) 820-4645
(tbc2) 820-4555
(sys3) 820-0010

And another fine Canadian attempt at BBS of the University of Manitoba via Datapak :

(6) UMBBS 300-9100
93200230(cr) LOGIN UMBBS(cr)

Phoenix BBS reports that the "Trinity Magnum Corp." is trying to buy the rights to produce the Timex line. The new product line would be called "Time Star" and would be characterized by a brilliant three-dimentional logo. The new computers will possibly include a portable based on the TS2500 complete with built-in monitor and modem. Also to be produced would be a new 2068 with one or two built in drives.

Finally, we have an unconfirmed report that Sinclair has recently sold 100,000 ZX-81's to the Soviet Union. These machines are to be used by students, and will not be available to the general public.*****Leo*****

4th CORNER

In the last issue (ie, vol 1 #4) I indicated that the next item I would include is a one screen load RAMDISC. This utility was developed for the Tree-Forth Rom and represents 812 bytes of high level code. In essence the utility uses the available ram as a temporary storage place prior to saving it tape via the Flush command.

In the case of transportability to cassette based Forth either for the ZX-81 or the 2068 you should have no particular problem with the utility as is except that you must change the size of the storage space per screen from 512 bytes to 1024 or 1 K.

This utility is a time saver in that you do not have to save to tape each screen of code before going on to the next screen, instead you would call in the command mode Ramdisc to transfer the screen to the storage space and when the space is full the system would automatically save all of the screens stored in the Ramdisc.

Now let us take a look at the utility:

```
0 ( Screen 1 Ram-disc
1 0 Variable Ramstart 10000
    Allot
2 0 Variable Ram 512 Integer
    Ramvp
3 ( Incram Ram @ 5300 - 0= If
  ." Ramdisc Full" Else Ram @
    Ramvp + Ram !  Decram
    0 Ram ! ;
4 ( Delay 32000 0 Do Loop ;
5 ( Ramdisc Fbuf Ram @ 2+
    Ramstart + Copy Incram
6 ( Save ." Ready Cassette
    key Drop Ram @ 512 -  0
    Decram Do Ram @ 2+ Ramstart
    + Fbuf Copy 0 Store Incram
    Delay Loop Decram
7 ( Cload Auto Con 0 Load ;
```

To describe the utility:

```
Ramstart= variable with BP
          allocated
Ram= ram used) Integer of
     constant ramvp=step of 512
     Bytes per screen
Incram= increments Variable Ram
        as each screen is saved
        to Ramdisc if space is
        available
Decram= reinitialize variable
        Ram
Delay= delay routine space out
       screen saves on tape
Ramdisc= save into Ramdisc space
         the current screen in
         the video screen
         Fbuf is the video screen
         address (see b.k and
         Block)
Save = successive saves of a.l
       screens in the Ramdisc
Cload = places the machine in
        fast (ZX-81) sets the
        compile screen mode
        and loads successive
        screens  (see ---)
```

For now I will leave the next issues topic a mystery, I am also soliciting input to this column from the group, I know that there are a number of Z.a hats to Forth as well as some newcomers who have cobbled with this expressive language.

Please submit your ideas and programs even if they are as small as mine above. Perhaps anyone be able to connect to their version of Forth I will be most happy to put it in this column.

R. Mulder

HARDWARE REVIEW

2068/SPECTRUM .* ROMSWITCH *.

A few months ago some of us got together and decided to buy one of these "new fangled" doodads for our computers called a Romswitch. What they're suppose to do is allow us poor abandoned 2068 owners to run much of the software available for the Sinclair Spectrum. This is accomplished by installing a Spectrum III ROM right inside the case, parallel to the 2068 ROM and controled by a magnetic switch. It's easy to install... costs between $65 and $100 Canadian, depending upon whether you make a "Group Purchase" or not.....and....

IT WORKS!!!

I must admit, I was sceptical at first and really afraid I was going to fry my computer while installing the little bugger. I was very doubtful that it would run as many of the programs as they claimed and of the ones it would run, I woundered how many would be any good.

Well, I was pleasently surprised on both counts. As I said it was quite easy to install but I was most startled by the amout and quality of the software it will run.

In conclusion, it's an enormouse asset to anyone with a 2068. It opens up the whole U.K. manket...and that's quite a bit.

Pick one up if you get the chance.

Jim Turner

Software Review

CHEKSTUB

Computer: ZX-81,TS1000
Ram Needed: 16k
Price: $9.95(U.S.)
Available from: ROBOTEK

Needing a good cheque record keeper, I ordered this program in the hope it could put some order into my chequing chaos.

Chekstub has some strong points: One screen displays Cheque No., Date, Budget Category, Who cheque was payable to, Amount of cheque, and Cumulative Balance. It also shows monthly expenditures by budget category, and will provide a detailed analysis of any budget category. It also has a menu item - "Balance Chequebook" (more on this later).

Converting my records from another unsatisfactory program to this, took about an hour. Perhaps it was a mistake.

Some problems: Only five columns are provided for cheque amounts. Since one column is used for a decimal point, this means amounts of $100.00 or more overwrite the balance figure. The program truncates trailing zeroes (this could have easily been fixed). Occasionally on overdrafts, numbers such as "-9.8941324" occur.

Even worse, deposits need a "Cheque No." to enter. Further, the program requires Cheque No.s for ATM transactions. Since corrections are only possible by referencing the Cheque No. input, I found myself assigning a series of unique but fictitious cheque no.s to ATM transactions.

Not to worry I thought. The program I had been using was just as bad, but this one boasted a "Chequebook Balancing" routine. After using the program for a month, my cheque statement arrived in the mail. I loaded the program, selected the balancing routine from the menu, and was told my opening, and closing balances, and the total cheques written and deposits made. Alas, no assistance in balancing my statement.

The program also does not even provide a way of printing the screen to the printer.

In some ways, this beauty is ingenious; but overall and where it counts, it is mediocre. Not recommended.

-Leo Foss

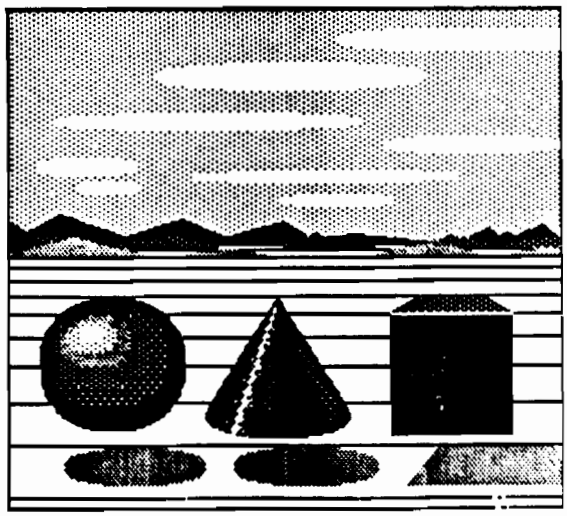
SINC ARTIST 1.3

After seeing the incredible utility program ; TOP DRAWER a few months ago, I was jealous. Why doesn't someone develop a similar program for the TS1000? Well, someone did. It's called SINC ARTIST and was developed b a couple of crazy Canadians.

The SINC ARTIST program will allow you to interactively create Hi Res pictures on your TS1000. The pictures created are intended to be printed on the 2040 printer. The resolution of the printed image is 192 x 256 pixels.(eat your heart out 2068) The television display shows a 48 x 64 window of the hi res file.

The program is totally menu driven. There are four main menus in all. The DRAW, SHAPE, MAIN, and GOODIES menu.The options listed in each menu are accessed by pressing the key corresponding to the desired function.

The 5,6,7 and 8 keys are used to control a flashing cursor. The shift key is used to select the point that the cursor is currently on. The enter key is used to exit the function. More than one key may be pressed at a time, and appropriate combinations of the cursor keys will cause diagonal movement. Pressing the S key at any time will display a screen showing the position of the window relative to the entire Hi Res file.



There are 40 patterns that can be accessed with this program. These are used for filling in areas so that the effect of different shades can be accomplished. (see above diagram).

When the picture is done, it can be printed on a timex printer in the normal mode or in banner mode where the picture is a large size version of the Hi Res file. The banner is printed out as a series of vertical sections whith can be assembled for a poster size image.

If the picture is not complete, or you wish to save it for later use, you can save it to tape and reload, edit and print it later. The picture is approx. 6K long.

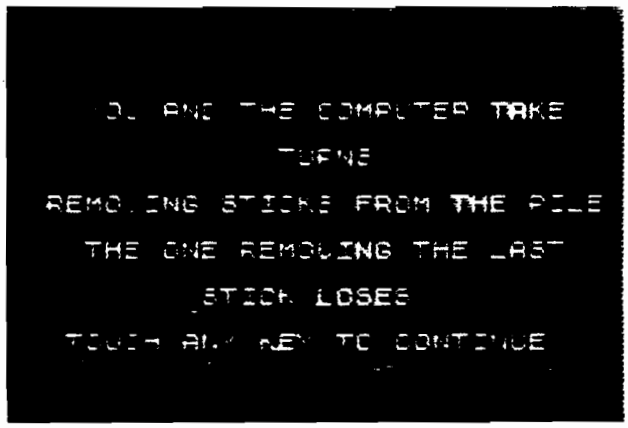
All in all this is an exceptionally good program. (I would give it a 4 star rating). However there is one minor drawback. You can't see the Hi Res picture until you print it out on the printer. You are only able to see parts of it on the screen at a time.

However, after talking to the creators, I found that they are in the process of working on a new piece of software that allows both upper and lower case letters on the screen as well as a screen resolution of 192 x 128 and a printer resolution of 192 x 256. Almost sounds too good to be true. More on this as it becomes available.

The price of SINC ARTIST is only $11.95 with a further 25% reduction for orders of 10 or more. All of those people interested can see me and I will attempt to arrange a group purchase. I think that it is a great deal and definately one of the better programs that I have run across.

Greg Goodwin

Personals



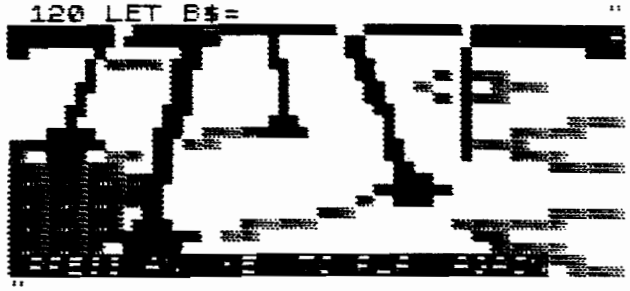

```
  5 LET CS=0
  6 LET PS=0
  7 CLS
 10 PRINT AT 10,5;"INSTRUCTIONS
(Y/N)"
 15 RAND
 18 IF INKEY$="" THEN GOTO 18
 20 LET I$=INKEY$
 30 IF I$="Y" THEN GOSUB 1000
 35 DIM Z$(30)
 40 LET Y=INT (RND*21)+10
 45 LET MM=INT (RND*7)+2
 48 PRINT AT 1,2;"STICKS ";Y;"
MOVE ";MM
 47 GOSUB 200
 48 GOSUB 300
 50 PRINT AT 7,1;"PLAYER MOVE
"
 55 LET P$=INKEY$
 58 IF P$<"1" OR P$>"3" THEN GO
TO 55
 59 LET PM=VAL P$
 60 PRINT AT 7,15;PM;"  "
 65 IF (PM>MM) OR PM<1 THEN GOTO
 55
 70 LET Y=Y-PM
 75 IF Y>0 THEN GOTO 80
 76 PRINT AT 4,1;"  ";AT 1,9;"0"
 77 PRINT AT 7,1;"YOU LOSE HA,H
A,HA"
 78 LET CS=CS+1
 79 GOSUB 500
 74 CLS
 75 GOTO 35
 80 GOSUB 300
 85 PRINT AT 1,2;"STICKS ";Y;"
"
 90 LET Z=Z++Z++Z++Z
 95 LET Z=(Y-1)*MM+1
 96 LET Z=Y-INT Z/+.01
 97 IF INT CM=0 THEN LET CM=1
 98 LET CM=INT CM
 99 PRINT AT 7,1;"COMPUTER TAKE
S ";CM
100 LET Y=Y-CM
105 IF Y>0 THEN GOTO 170
106 PRINT AT 4,1;"  ";AT 1,9;"0"
110 PRINT AT 7,1;"  ,,,,, YOU WIN
,,,,"
112 LET PS=PS+1
115 GOSUB 500
118 CLS
120 GOTO 35
170 GOSUB 300
175 PRINT AT 1,2;"STICKS ";Y;"
"
176 LET Z=Z++Z++Z++Z
177 GOTO 50
300 FOR Z=0 TO 63
310 PLOT Z,37
320 PLOT Z,32
330 NEXT Z
340 FOR Z=32 TO 37
350 PLOT 0,Z
360 PLOT 63,Z
370 NEXT Z
380 RETURN
500 PRINT AT 4,1
505 DIM Z$(30)
508 FOR Z=1 TO
510 LET Z$(Z)="
515 NEXT Z
520 PRINT Z$
530 RETURN
600 PRINT AT 9,0;"COMPUTER ";CS
610 PRINT AT 11,0;"PLAYER ";PS
620 PRINT AT 13,3;"TOUCH ANY
KEY TO PLAY AGAIN"
630 IF INKEY$="" THEN GOTO 630
640 RETURN
1000 CLS
1010 PRINT "STICKS
INSTRUCTIONS"
1020 PRINT
```

```
1030 PRINT "
1040 PRINT "
1050 PRINT "
1060 PRINT "
1070 PRINT "     YOU ANE THE COMP
UER TYPE
1075 PRINT "
1080 PRINT "                TURNI
1085 PRINT "
1090 PRINT "  REMOVING STICKS FR
OM THE PILE
1100 PRINT "
1110 PRINT "     THE ONE REMOVING
 THE LAST
1120 PRINT "
1130 PRINT "              STICK LOSE
S
1150 PRINT "
1155 PRINT "    TOUCH ANY KEY TO
CONTINUE
1160 PRINT "
1170 PRINT "
1180 PRINT "
2000 IF INKEY$="  THEN GOTO 2000
2005 CLS
2010 RETURN
```

SUBMITTED BY ROGER R GLOVER

```
  10 SLOW
  20 PRINT AT 10,6;"PRESS ANY KE
Y TO RUN"
  30 IF INKEY$="" THEN GOTO 30
  40 CLS
  50 PRINT AT 10,0;"■ INFORMATIO
N";,,,"■ PLAY"
  60 IF INKEY$="1" THEN GOTO 102
0
  70 IF INKEY$="2" THEN GOTO 90
  80 GOTO 60
  90 FAST
 100 CLS
 110 LET A$=                    "
```

```
"
 120 LET B$=                    "
```



```
"
 130 LET A$=A$+B$
 140 PRINT                      "
"
 150 FOR X=1 TO 16
 160 PRINT "
"
 170 NEXT X
 175 LET L$="
"
 180 PRINT AT 17,0;L$
 190 FOR A=1 TO 9
 200 LET X=INT (RND*16+1)
 210 LET Y=INT (RND*30+1)
 220 PRINT AT X,Y;"■"
 230 NEXT A
 240 FOR A=1 TO 10
 250 LET X=INT (RND*16+1)
 260 LET Y=INT (RND*30+1)
 270 PRINT AT X,Y;"■"
 280 NEXT A
 290 GOTO 760
 300 IF H<50 AND V<20 AND V>-15
AND ABS (Z-M)<5 THEN GOTO 940
 310 IF H>1750 THEN GOTO 740
 320 RETURN
 330 LET A=A/7
 340 LET T=T+4+INT (RND*2+1)
 350 LET V=V+A**3-12-3*RND
 360 LET H=H+V-20+10*RND
 370 LET F=F-(ABS (A)+ABS (B/5)*
6*RND)
 380 GOSUB 300
 390 IF H<20 OR F<5 THEN GOTO 64
0
 400 LET U=H/95
 410 LET Z=Z+B/2+2-RND*3
 420 SLOW
 430 PRINT AT U,X;"■■■■■"
 440 PRINT AT U+1,X;"■■■"
 450 PRINT AT U+2,X+1;"■"
 460 PRINT AT 16-U,Z+1;"■■■"
 470 PRINT AT 17-U,Z+1;"■■■"
 480 LET U=16-U
 490 LET X=Z+1
 500 PRINT AT 17,0;L$( TO M-1);"
■■■■■";L$(M+5 TO )
 510 PRINT AT 21,0;"
"
 520 PRINT AT 18,0;"VEL: ";INT V
;"  ","FUEL: ";INT F;"  ","TIME:
 ";INT T;"  ","HIGHT: ";INT H;"
 "
 530 PRINT AT 21,0;"■■■■■■■■■■■■";
 540 INPUT A
 550 LET A=ABS A
 560 PRINT AT 20,0;"THRUST ";A;"
  ";AT 21,0;"■■■■■■■■■■■■"
 570 INPUT B
 580 PRINT AT 20,16;"DRIFT ";B;"
  ";AT 21,0;"
"
 590 IF B=0 THEN GOTO 620
 600 IF B<0 THEN GOSUB 870
 610 IF B>0 THEN GOSUB 890
 620 IF A>0 THEN PRINT AT U+2,X+
1;"■"
```

```
  630 GOTO 330
  640 PRINT AT 17,Z+2;"▀";AT 17,Z
+2;" ";AT 16,Z+1;"▄▀";AT 15,Z;"
▄▀▄";AT 14,Z+2;"▀";AT 16,Z+1;"
▀";AT 15,Z;"▀▄▄▀";AT 15,Z;"▀▀
▀▀";AT 16,Z+1;"▀▀";AT 16,Z+1;"
▀";AT 17,Z+2;"▀"
  650 PRINT AT 21,7;"▀▀▀▀ ▀▀▀▀▀
";INT (ABS V);"▀▀▀▀"
  660 FOR X=1 TO 30
  670 NEXT X
  680 PRINT AT 21,0;"▀▀▀▀▀▀▀▀▀▀▀▀
▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀▀
```

```
  67 DATA 0,0,0,0,0,128,128,240
  68 DATA 63,109,118,63,15,0,0,0
  69 DATA 255,182,219,255,255,0
0,0
  70 DATA 252,222,110,252,240,0
0,0
  71 DATA 0,36,24,60,60,24,0,0
  72 DATA 255,255,126,126,60,24,
24,0
  73 DATA 24,24,24,24,24,24,24,2
4
  74 DATA 34,62,28,8,127,93,20,5
4
  75 DATA 192,240,248,255,255,24
8,240,192
  76 DATA 3,15,31,255,255,31,15,
3
  77 DATA 15,31,48,95,199,135,0,
0
 210 PRINT #0,"  Press any key t
o continue"
 220 PAUSE 0
 230 CLS
 235 PRINT AT 3,11; INVERSE 1;"T
he game"; INVERSE 0;AT 5,1;"You
have to bomb the domes       bef
re the time runs out. If     the
time does run out the        miss
ile launches at Earth!!!!!"
 240 PRINT AT 1,12; INVERSE 1;"S
AUCER"; INVERSE 0;AT 10,1;"To ma
ke it even harder there      are a
lso gun turrets that fire    at yo
u, so you have to avoid      being
 shot."
 250 PRINT AT 16,1;"Your score g
oes up ten when you hit a dome."
 260 PRINT #0;"  Press any key t
o continue"
 300 PAUSE 0: CLS
 301 PRINT AT 1,12; INVERSE 1;"W
arning";AT 3,1; INVERSE 0;"Do no
t break into this program  using
 the break keys. Instead    press
 0."
 302 PRINT #0;"    Press any key
 to play."
 303 PAUSE 0
 304 LET s=0
 305 CLS : POKE 23606,232
 310 POKE 23607,252
 320 BEEP .01,0: FOR z=0 TO 3: P
RINT AT z,0;"$$$$$$$$$$$$$$$$";A
T z,25;"L$$$$$$": NEXT z: POKE 2
3606,0: POKE 23607,60: PRINT AT
3,2;"SCORE="
 321 PRINT AT 5,2;"TIME=": POKE
23606,232: POKE 23607,252
 325 PRINT AT 21,0;"$$$$$$$$$$$$
$$$$$$$$$$$$$$$$$$$$$$$$": FOR z=0
 TO 20: PRINT AT z,31;"$": NEXT z
 326 PRINT AT 17,17;"K";AT 17,19
; INK 4;"MMMMMMMMM"
 327 INK 6: PRINT AT 9,3;"H#=H=#
H#=H"
 328 PRINT AT 15,30;"L";AT 17,25
;"L"
 329 PRINT AT 10,1;"K";AT 10,30;
"L"
 330 PRINT AT 18,2; INK 4;"%&";A
T 18,7;"%&";AT 19,2;"(";AT 19,5
;"(";AT 19,7;"(";AT 19,10;"(";AT
 20,2;"-";AT 20,5;"-";AT 20,7;"-
";AT 20,10;"-"
 340 PRINT AT 19,3; INK 6;"+"; I
NK 5;"+";AT 20,3; INK 7;"." INK
 6;"."
 350 PRINT AT 19,8; INK 5;"+"; I
NK 7;"/";AT 20,8  INK 3;"/"; INK
 6;"."
 360 PRINT AT 18,22; INK 5;"+";
AT 19,22;"=";AT 20,22;"0"
 370 LET p=0: LET t=120: LET w=0
: LET x=0: LET y=17
 400 IF IN 64510=23 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
x=x-1
 410 IF IN 64510=27 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
x=x+1
 420 IF IN 64510=29 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
y=y+1
 430 IF IN 64510=30 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
y=y-1
 440 IF IN 64510=26 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
y=y-1: LET x=x+1
 450 IF IN 64510=22 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
y=y-1: LET x=x-1
 460 IF IN 64510=21 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
y=y+1: LET x=x-1
 470 IF IN 64510=25 THEN PRINT A
T x,y;"###";AT x+1,y;"###": LET
y=y+1: LET x=x+1
 471 IF INKEY$="P" OR INKEY$="p"
 THEN BORDER 4: PAUSE 0: PAUSE 0
: BORDER 0
 472 IF INKEY$="m" OR INKEY$="M"
 THEN GO TO 8000
 473 IF INKEY$="0" THEN POKE 236
06,0: POKE 23607,60: STOP
 475 IF IN 64510=15 THEN GO TO 5
10
 476 IF w<>0 AND x<0 THEN LET x=
0
 477 IF y<1 THEN LET y=1
 478 IF y>28 THEN LET y=28
 480 PRINT AT x,y,"ABC";AT x+1,y
;"DEF"
 481 PRINT AT 2,8;s;AT 5,8;t;"  "
 482 IF t=0 THEN GO TO 800
 483 LET t=t-1
 485 IF p=6 THEN GO TO 305
 490 GO TO 650
 500 GO TO 400
 510 FOR z=x+3 TO 20
 520 IF SCREEN$ (z,y+1)<>"#" THE
N GO TO 550
 525 PRINT AT z-1,y+1;"#"
 530 PRINT AT z,y+1; INK 5;"G"
 540 NEXT z: GO TO 600
 550 IF SCREEN$ (z,y+1)="$" THEN
 GO TO 600
 555 IF SCREEN$ (z,y-1)="M" THEN
 GO TO 600
 560 IF SCREEN$ (z,y-1)="K" THEN
 GO TO 600
 565 IF SCREEN$ (z,y+1)="L" THEN
 GO TO 600
 570 PRINT AT z-1,y+1;"#": NEXT
z: LET s=s+10: LET p=p+1
 600 PRINT AT z-1,y+1;"#": GO TO
 480
 650 IF w=9 THEN LET w=0
 655 IF x<=8 THEN LET w=w+3
 660 IF x=9 THEN LET w=0
 661 IF w<>0 AND y<=15 THEN GO T
O 8000
 662 IF w<>0 AND y>=23 THEN GO T
O 8000
```

```
 670 IF w>0 THEN PRINT AT w-1,15
; INK 3;"MMMMMMMMM": BEEP .15,3:
 GO SUB 700
 675 IF w=0 THEN GO SUB 750
 680 GO TO 400
 700 IF x=w-1 OR x+1=w-1 THEN GO
 TO 8000
 710 PRINT AT w-1,16; INK 0;"###
######"
 720 RETURN
 750 LET l=INT (RND*16+1)
 751 IF x=10 OR x=9 THEN GO TO 9
00
 752 IF x=16 THEN GO TO 950
 753 IF x=14 OR x=15 THEN GO SUB
 930
 755 IF l>=5 THEN RETURN
 756 LET v=l+l+l
 760 FOR q=11 TO 16: PRINT AT q,
v; INK 4; INK 4;"I": NEXT q: BEE
P .05,9
 765 IF v=y OR v=y+1 OR v=y+2 TH
EN GO TO 8000
 770 FOR q=11 TO 16: PRINT AT q,
v; INK 0;"#": NEXT q
 780 RETURN
 800 PRINT AT 17,18;"############
#"
 810 FOR z=0 TO 10: BEEP .1,9: N
EXT z: FOR z=0 TO 18: PRINT AT 1
7-z,22; INK 5;"-";AT 18-z,22;"=
";AT 19-z,22,"?@";AT 20-z,22;"#
#": BEEP .05,5: BEEP .05,8: BEEP
 .05,3: NEXT z
 820 GO TO 8000
 900 PRINT AT 10,2; INK 5;"MMMMM
MMMMMMMMM";AT 10,25;"MMMMM": IF
 y<=15 THEN GO TO 8000
 910 IF y>=23 THEN GO TO 8000
 920 BEEP .01,0: PRINT AT 10,2
##############";AT 10,25;"#####
": GO TO 400
 930 PRINT AT 15,15; INK 5;"MMMM
MMMMMMMMMM"
 935 BEEP .01,0: IF y>=13 THEN G
O TO 8000
 940 PRINT AT 15,15;"###########
####": RETURN
 950 PRINT AT 17,1; INK 5;"MMMMM
MMMMMMMMM": BEEP .01,0
8000 BEEP .1,1: BEEP .1,2: BEEP
 .1,3: BEEP .1,2: BEEP .1,1: PRIN
T AT x,y; INK 6; FLASH 1;"ABC";A
T x+1,y;"DEF"
8020 POKE 23606,0
8030 POKE 23607,60
8040 BORDER 1: PRINT #0;"
   GAME   OVER                "
8050 BORDER 0: FOR c=0 TO 75: NE
XT c: GO TO 302
9000 REM [illegible]
```

TS2068 TIP

Type "USR 15002 and Enter" if you find yourself in an Input you can't get out of

Some of you may have noticed that the Newsletter looks a bit mottled. It's because Mr. Mulder and I decided to just insert all the submissions "as is" this time.

We get articals justified, unjustified, 32 chatacters wide, 42 characters wide, on old Timex printer paper(yuk), even some with blue on white paper.... try xeroxing that somtime. Up untill now we've been taking the articals that wouldn't reproduce well or didn't match our format and re-keying them... That's a lot of work.

You could help us in future by submiting your articals, ads and programs on tape (Tasword II or M Script for 2068 or Word Saver II for TS1000). Listings for programs, of course, are a bit different but, even so, if the program is sent to us on tape, we can ensure that the print quality will be uniform by printing everything on the same printer. It saves you paper as well.

We were both very impressed and encouraged by the number and quality of the submissions for this newsletter. Keep those "tapes" coming.

Jim Turner

SCROLL LEFT-TS2068

Reserve 20 bytes either in a REM statement or above RAMTOP

Poke the following numbers in sequence from left to right:

33,192,87,6,184,197,6,32,62,0,43
79,126,119,16,250,193,16,242,201

Call the routine at the address containing the first byte with RANDOMIZE USR address

VOICE SYNTHESIZER-ZX81

See the November 1984 issue of Radio Electronics for a project to add synthesizer to your ZX81/TS1000

ZX81 MACHINE CODE DEVELOPMENT SYSTEM/EPROM BURNER

See the Janwary 1985 issue of Radio Electronics for a project to build an EPROM burner and a mc development system for your ZX81/TS1000

MEMBERSHIP REGISTRATION

Name:-

Address:-
-
-

Postal code:-

Telephone: Home:- Work:-

List your current hardware starting with the type of computer and peripherals:-
-
-
-
-
-
-
-

List your current knowledge of the following programming Languages:- (eg. good , fair , poor)

BASIC	FORTH	MACHINE CODE	PASCAL	OTHER

:-

Please indicate if you are willing to personally participate in the Executive in any of the following capacities :-

Hardware support (eg. demo's):-_____

Software support (eg. demo's):-_____

Administration:-_____

Treasurer:-_____

Training Courses (eg. teach/assist):-_____

Other:_____

MEMBERSHIP NUMBER:-(to be assigned):-_____

If there is anything that you wish to add such as personal interests or what have you, please feel free to do so:-
:-
:-
:-
:-